

Food & Agriculture

Key Takeaway: U.S. freight railroads are vital to the agricultural industry, transporting a wide range of products such as grains, agricultural and food products, farm equipment and fertilizers. Railroads are crucial for maintaining the nation's position as a top grain exporter, ensuring food security, and safely transporting hazardous materials used in fertilizer production.

When you picture the heartland of America, what comes to mind? Among the iconic silos and fields of amber waves of grain, there's a silent powerhouse that has been shaping the nation's agriculture for nearly two centuries – America's freight railroads. The deep-rooted relationship between U.S. railroads and farmers dates back to a time when railroads became the critical link connecting rural farms to emerging urban centers in an increasingly industrialized country.

Fast forward to today, and you'll find that railroads remain a vital cog in the wheel of American agriculture, playing a crucial role in everything from transporting farming equipment and fertilizers to delivering fresh produce and finished food products. In a typical year, railroads haul around 1.6 million carloads of grain and other farm products and more than 1.7 million carloads of food products. Railroads typically carry more than 60,000 carloads of food and agriculture products per week.

Railroads are critical to our nation's food security.

Agricultural and food products transported by railroads include a wide array of essentials, such as wheat, corn, soybeans, animal feed, beer, birdseed, canned produce, corn syrup, flour, frozen chickens, sugar and even wine. Thanks to the sheer scale of railroads, the U.S. agricultural sector operates efficiently and seamlessly.

Railroads play a crucial role in the agricultural supply chain, starting from the transportation of raw materials from mines to fertilizer processors. Once processed, fertilizers are shipped to distributors and intermodal ports for export. Distributors then supply fertilizers to farmers, who use them to grow crops. Subsequently, grains move from elevators to mills and manufacturers, where they are transformed into various products such as food, animal feed and ethanol. Finally, these products, along with harvested produce, are transported to markets.

To put it in perspective, a single railcar can transport enough:

- Wheat for 258,000 loaves of bread.
- Corn for the lifetime feeding requirements of 37,000 chickens.
- Barley for around 94,000 gallons of beer.
- Soybeans for about 415,000 pounds of tofu.

Railroads safely transport chemicals.

Railroads are the [safest way to transport hazardous materials](#) and are essential for moving the chemicals that produce fertilizers. Railroads move large amounts of anhydrous ammonia, potassium compounds, and urea. They also carry millions of tons of raw materials used to produce fertilizer each year, including phosphate rock, crude potash, and sulfur. One rail tank car of anhydrous ammonia carries around four tanker trucks, enough to fertilize 770 acres of corn.

America is the world's top grain exporter thanks in part to freight railroads.

Behind this remarkable achievement is the unyielding support of its railroad network. According to the United States Department of Agriculture (USDA), railroads are responsible for well over a third of U.S. grain export movements. The spectrum of grains transported by rail is diverse, encompassing corn, soybeans, oats, wheat, rice, sorghum, and barley. These grains serve multiple purposes, from becoming staples in our diets to providing essential feed for livestock and even serving as the raw materials for ethanol production.

Corn takes the lead as the highest-volume grain carried by railroads. It is grown in abundance, primarily in Midwestern states. Soybeans make up 23% of total grain carloads. Soybeans are predominantly grown in states that also produce large quantities of corn. Wheat primarily thrives in the northern tier of U.S. states, including the Dakotas, Montana, and Idaho, as well as the plains of Kansas, Oklahoma, and Texas.

To maintain the nation's position as the world's top grain exporter, railroads continually invest in their networks. These investments include acquiring high-capacity covered hoppers and deploying "shuttle trains" designed for the efficient export of U.S. corn, soybeans, and wheat. This commitment to innovation and efficiency ensures that American farmers remain globally competitive in the challenging grain market.

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The benefit of rail competition is a win-win for shippers.

In today's agricultural landscape, grain shippers reap the benefits of [strong competition](#) among various transportation modes, including railroads, trucks, and barges. According to USDA data, trucks accounted for 61% of total U.S. grain transport in 2016 (the most recent data available), while railroads represented 25%, and barges made up 14% of the total.

For grain export movements, rail's share is substantial, approaching 40%. Railroads are not limited to grain alone; they also transport approximately 750,000 carloads of grain-related food products annually. This includes 400,000 carloads of grain mill products such as corn syrup and flour, 248,000 carloads of processed soybeans (primarily soybean meal and soybean oil), and 100,000 carloads of dried distillers grains.

Efficiency is the cornerstone of successful grain marketing and transportation.

Railroads work hand-in-hand with freight car providers to maintain a fleet of railcars that meets the economic demands of the industry. Recent years have seen the acquisition of thousands of new high-capacity covered hoppers, designed to carry grain efficiently. In addition, highly efficient "shuttle trains" are utilized to move large volumes of grain reliably and cost-effectively.

As of early 2023, the North American railroad grain car fleet consists of approximately 273,000 cars, both owned by railroads and non-railroads, boasting a 1.4 billion cubic feet capacity. Here are just a few of the ways railroads manage the harvest season ([Download Infographic](#)):

- **Investments:** New, high-capacity hopper cars and shuttle trains enhance reliability and efficiency for moving grain. Expanded double track and extended yard tracks further increase the capacity for railroads to transport more cars.
- **Customer Collaboration:** Regular communication with customers, terminals, and industry experts provides railroads with insights to strategically position equipment and personnel while mobile apps allow shippers to order rail cars, track shipments, and get support.
- **Preparing Operations:** Railroads move hopper cars and locomotives out of storage and beef up mechanical inspection teams ahead of the harvest season so assets are ready as demand rises.